



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,713	01/28/2005	Seisho Yasukawa	265093US90PCT	8851
22850 7590 01/07/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
MOUTAOUAKIL, MOUNIR				
ART UNIT		PAPER NUMBER		
2419				
NOTIFICATION DATE		DELIVERY MODE		
01/07/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

Office Action Summary

Application No.

10/522,713

Applicant(s)

YASUKAWA ET AL.

Examiner

MOUNIR MOUTAOUKIL

Art Unit

2419

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 22-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7, 8, 13-16 and 21 is/are rejected.
- 7) ☒ Claim(s) 3-6, 9-12 and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to election/restriction

The Response received on 09-12-2008 has been entered and considered.

Claims 1-26 are pending in this application.

Claims 22-26 are withdrawn from consideration.

Drawings

1. The drawings, 23 and 24, were received on 01/28/2005. These drawings are objected to because they need to be indicated as prior art.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 103

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 7, 8, 13-16, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Q. Zhu et al (A Source-based algorithm for delay-constrained minimum cost multicasting) in view of Ishioka (US 6,999,422). Hereinafter referred to as Zhu and Ishioka.

8. Regarding claims 1, 7 and 15. Zhu discloses a method of setting multicast transfer routes in a multicast network comprising a plurality of points, the multicast transfer routes connecting a given starting point and a plurality of ending points (See figs 3-8), the multicast network comprises a multicast transfer apparatus provided to each point, a multicast transfer route computing apparatus that computes the multicast

transfer routes, and a multicast transfer route setting apparatus that sets the computed multicast transfer routes. The method comprises the following steps: the multicast transfer apparatus measures a traffic state of each direction in which data flow through each link of the network and requests the multicast transfer route computing apparatus to compute multicast transfer routes by transmitting the measured traffic state (section 3.2. The system measures network paths prior to transmission establishment); also, Zhu discloses (see section 3.2, figs 3-8) a method wherein, when generating a multicast tree, the multicast tree is generated by calculating the paths that minimize delay between the start point and each end point, the multicast tree is divided into two partial trees by deleting the path having the greatest cost in the multicast tree, and alternate path that full-fills the delay related condition and has a low cost is used in place of the aforementioned deleted path, and aforementioned alternate path is used to link the two aforementioned divided partial trees, thereby correcting the multicast trees and satisfying the multicasting conditions.

9. Zhu discloses all the limitations of the claimed invention with the exception of measuring the delay time, and selecting the shortest path based on the measurement. However, Ishioka, from the same field of endeavor, teaches a method of measuring the transmission time between nodes and selecting routes based on the measurements (see abstract, and col.2, lines 7-41). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the features taught by Ishioka, into the multicast network of Zhu for the purpose of producing a constitution

wherein, when calculating the shortest path, the network delay time is measured and the shortest path is calculated using the results of the measurement.

10. Regarding claims 2, 8, 16. Zhu discloses a method wherein when computing the complementary route, the multicast transfer route computing apparatus computes a route that incurs delay between the starting point and the ending points, that is less than an upper limit, and that incurs the least cost (see section 3)

11. Regarding claim 13. Zhu discloses an apparatus that further comprises an indicating unit that indicates the result of computation by the route computing unit in a control message for setting the transfer route; and a transmission unit that transmits the control message through the multicast transfer route indicated by the result of computation (see section 3).

12. Regarding claim 14. Zhu discloses an apparatus that further comprises a receiving unit that receives a request for computing the multicast transfer route from a multicast transfer route setting apparatus; and a transmitting unit that transmits the result of computation to the multicast transfer route setting apparatus (see section 3).

13. Regarding claim 21. Zhu discloses a method wherein a multicast transfer route based on the result of measurement of traffic state incurred in links in a multicast network (see section 3).

Allowable Subject Matter

14. Claims 3-6, 9-12, and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO_892.

Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOUNIR MOUTAOUAKIL whose telephone number is (571)270-1416. The examiner can normally be reached on Monday-Thursday (1pm-4:30pm) eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. M./
Examiner, Art Unit 2419

/Hassan Kizou/
Supervisory Patent Examiner, Art Unit 2419